REMARKS/ARGUMENTS

Claims 1-19 and 21 are present in this application. By this Amendment, claim 10 has been amended, and claim 20 has been canceled. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Claims 10, 12, 13 and 20 were rejected under 35 U.S.C. §103(a) over U.S. Published Patent Application No. 2003/0181302 to Kaiser et al. in view of U.S. Patent No. 5,763,345 to Ohshima et al. In paragraph 7, claim 21 was rejected under 35 U.S.C. §103(a) on the same grounds. These rejections are respectfully traversed.

Claim 10 has been amended to recite that the clay is either elutriated or subjected to a wet sizing separation purification process, similar to claim 21. Claim 20 has been canceled. The Office Action recognizes that Kaiser lacks a teaching of the clay being elutriated. In this context, the Office Action contends that Ohshima discloses that it is well known in the art to purify natural clay by elutriation, referring to col. 1, lines 35-36. This section in Ohshima, however, only references elutriation of clay as a *disadvantageous* process ("it is practically impossible to remove [the] impurities by elutriation and chemical treatment without deteriorating the characteristic properties of clay"). There is no other mention in Ohshima of elutriation of clay. Applicants thus respectfully submit that this description in Ohshima would not lead those of ordinary skill in the art to elutriate clay for a disc roll as defined in claims 10 and 21. Ohshima in fact teaches away from the modification proposed in the Office Action.

The Federal Circuit has repeatedly held that, as a "useful general rule," references that teach away cannot serve to create a *prima facie* case of obviousness. See, for example, *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). If references taken in combination would produce a "seemingly inoperative device," the Federal Circuit has held that such references teach away

from the combination and thus cannot serve as predicates for a *prima facie* case of obviousness. See, *In re Sponnoble*, 405 F.2d 578, 587 (CCPA 1969) ("references teach away from combination if combination produces seemingly inoperative device"). See also, *McGinley v. Franklin Sports Inc.*, 262 F.3d 1339 (Fed. Cir. 2001).

The Federal Circuit's decision in *In re Gurley* provides further guidance on this issue, particularly in relevant to the discussion in the Ohshima patent with regard to the purported "disadvantageous" elutriation process. In particular, the Federal Circuit provided that "[a] reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant." See *United States v. Adams*, 383 U.S. 39, 52, 148 USPQ 479, 484 (1966) ("known disadvantages in old devices which would naturally discourage the search for new inventions may be taken into account in determining obviousness"). *In re Gurley*. Moreover, the Federal Circuit further provided that "[a] reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant." *Id*.

Even under the Supreme Court's decision in *KSR International Co. v. Teleflex Inc.*, the factual inquiries in *Graham v. John Deere Co.* are still the basis for determining obviousness under §103. As part of resolving the *Graham* inquiries, it is important to include findings as to how a person of ordinary skill in the art would have understood prior art teachings. In the present context, Ohshima discloses that elutriation is ineffective, and consequently, it is apparent

that a person of ordinary skill would not have been led to modify the Kaiser publication in view of Ohshima. Moreover, *KSR* references combining prior art elements according to known methods to yield predictable results. As taught by Ohshima, utilizing elutriation of clay in Kaiser would be ineffective. *KSR* also references utilizing known techniques to improve similar devices. In this regard, since Ohshima references the disadvantageous nature of elutriation, according to Ohshima, use of elutriation in Kaiser would not in any manner improve Kaiser as required by *KSR*.

Applicants thus respectfully submit that the rejection of independent claims 10 and 21 is misplaced.

With regard to dependent claims 12 and 13, Applicants submit that these claims are allowable at least by virtue of their dependency on an allowable independent claim.

Reconsideration and withdrawal of the rejections are respectfully requested.

Claim 11 was rejected under 35 U.S.C. §103(a) over Kaiser in view of Ohshima and U.S. Patent No. 4,533,581 to Asaumi et al. The Asaumi patent, however, does not correct the deficiencies noted above with regard to Kaiser and Ohshima, taken singly or in combination. As such, Applicants submit that this dependent claim is allowable at least by virtue of its dependency on an allowable independent claim. Withdrawal of the rejection is requested.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the claims are patentable over the art of record and that the application is in condition for allowance. Should the Examiner believe that anything further is desirable in order to place the application in condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Prompt passage to issuance is earnestly solicited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /Alan M. Kagen/
Alan M. Kagen
Reg. No. 36,178

AMK:jls
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100